

**ABSTRACT**

A router device is disclosed for use in a communication system having at least two telephone devices in communications with each other for transferring voice information therebetween through a packet switching network. The router device is coupled between one of the telephone devices and the packet switching network for performing one of a plurality of types of compression/decompression (codec) operation on information being transferred between the telephone devices. The router device includes a Digital Signal Processor (DSP) module responsive to an analog telephone signal for carrying a telephone conversation generated from one of the telephone devices and operative to convert the analog telephone signal to a digital telephone signal. The DSP packetizes the digital telephone signal for transmission to a remotely-located router device and switches from using a first type of codec to using a second type of codec upon detection of degradation in the quality of the voice information while a conversation is taking place between the two telephone device yet avoiding substantial disturbance to users of the telephone devices.

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